

Claims:

1. A broadcast audio receiver system, comprising:

a plurality of pairs of receivers, each pair of said plurality of pairs receiving broadcasts on a unique broadcast band defined by a broadcast signal that is one of an analog audio signal or a digital audio signal;

a decoder coupled to each of said receivers for converting each said broadcast signal to a character representation thereof;

input controls for receiving, from a user, a selected frequency on a selected broadcast band and search criteria;

an audio output device;

control means coupled to said receivers, said input controls and said audio output device for:

i) tuning one of said receivers to said selected frequency,

ii) coupling said one of said receivers to said audio output device wherein all others of said receivers are not coupled to said audio output device,

iii) scanning said broadcast band associated with each of said all others of said receivers,

iv) comparing said character representation of said broadcast signal with said search criteria for each of said all others of said receivers,

v) generating a match signal when said search criteria is present in said character representation for one receiver from

26 said all others of said receivers to thereby define a match
27 frequency on a match broadcast band where said search criteria
28 is present;

29 means, coupled to said control means, for generating an
30 announcement in response to said match signal;

31 said input controls further being capable of receiving a
32 match select signal from the user; and

33 said control means, in response to said match select
34 signal, uncoupling said one of said receivers from said audio
35 output device and coupling a designated one of said receivers
36 capable of receiving said match frequency on said match
37 broadcast band to said audio output device wherein said one of
38 said receivers assumes a function that is the same as said all
39 others of said receivers.

1 2. A system as in claim 1 wherein said decoder is a speech
2 recognition decoder when said broadcast signal is said analog
3 audio signal, and wherein said decoder is a digital decoder
4 when said broadcast signal is said digital audio signal.

1 3. A system as in claim 1 further comprising memory for
2 storing at least one of said broadcast signal received on said
3 match frequency and said character representation
4 corresponding thereto.

1 4. A system as in claim 1 wherein said means for generating
2 an announcement generates at least one of an audio
3 announcement and a video announcement in response to said
4 match signal.

1 5. A system as in claim 1 wherein said input controls
2 comprise at least one of controls activated by touch and
3 controls activated by voice.

1 6. A system as in claim 1 wherein said input controls are
2 capable of receiving one of a voice message and a text message
3 from the user, and wherein said means for generating an
4 announcement can display text, said system further comprising
5 a wireless messaging module for sending and receiving messages
6 over the air waves, said wireless messaging module coupled to
7 said control means, said wireless messaging module comprising:

8 a filter for converting said one of a voice message and
9 a text message to a format suitable for wireless transmission;
10 and

11 a wireless transceiver for transmitting said one of a
12 voice message and a text message in said format, and for
13 receiving a wireless text message, said wireless transceiver
14 supplying said wireless text message to said control means for
15 routing to said means for generating an announcement wherein
16 said wireless text message is displayed as text.

1 7. A broadcast audio receiver system, comprising:

2 a plurality of pairs of receivers, each pair of said
3 plurality of pairs receiving broadcasts on a unique broadcast
4 band defined by a broadcast signal that is one of an analog
5 audio signal or a digital audio signal;

6 a decoder coupled to each of said receivers for
7 converting each said broadcast signal to a character
8 representation thereof;

9 input controls for receiving, from a user, a selected
10 frequency on a selected broadcast band and search criteria;

11 an audio output device;

12 foreground control means for coupling one of said
13 receivers capable of receiving said selected frequency to said
14 audio output device wherein said broadcast signal associated
15 therewith is audible and wherein said broadcast signal
16 associated with each of all others of said receivers is not
17 audible;

18 background control means having operational control over
19 said all others of said receivers such that each said
20 broadcast band associated therewith is examined to determine
21 whether said search criteria is present in said character
22 representation, and for generating a match signal when said
23 search criteria is present in said character representation
24 for one receiver from said all others of said receivers to
25 thereby define a match frequency on a match broadcast band
26 where said search criteria is present;

27 means, coupled to said background control means, for
28 generating an announcement in response to said match signal;

29 said input controls further being capable of receiving a
30 match select signal from the user;

31 said foreground control means, in response to said match
32 select signal, uncoupling said one of said receivers from said
33 audio output device and coupling a designated one of said
34 receivers capable of receiving said match frequency on said
35 match broadcast band to said audio output device; and

36 said background control means assuming said operational
37 control over said one of said receivers uncoupled from said
38 audio output device.

1 8. A system as in claim 7 wherein said decoder is a speech
2 recognition decoder when said broadcast signal is said analog
3 audio signal, and wherein said decoder is a digital decoder
4 when said broadcast signal is said digital audio signal.

1 9. A system as in claim 7 further comprising memory coupled
2 to said background control means for storing at least one of
3 said broadcast signal received on said match frequency and
4 said character representation corresponding thereto.

1 10. A system as in claim 7 wherein said means for generating
2 an announcement generates at least one of an audio
3 announcement and a video announcement in response to said
4 match signal.

1 11. A system as in claim 7 wherein said input controls
2 comprise at least one of controls activated by touch and
3 controls activated by voice.

12. A system as in claim 7 wherein said input controls are capable of receiving one of a voice message and a text message from the user, and wherein said means for generating an announcement can display text, said system further comprising a wireless messaging module for sending and receiving messages over the air waves, said wireless messaging module coupled to said background control means, said wireless messaging module comprising:

a filter for converting said one of a voice message and a text message to a format suitable for wireless transmission; and

a wireless transceiver for transmitting said one of a voice message and a text message in said format, and for receiving a wireless text message, said wireless transceiver supplying said wireless text message to said background control means for routing to said means for generating an announcement wherein said wireless text message is displayed as text.

1 13. An audio processing method for a broadcast audio receiver
2 system having a plurality of pairs of receivers, each pair of
3 which receives broadcasts on a unique broadcast band defined
4 by a broadcast signal that is one of an analog audio signal or
5 a digital audio signal that can be reproduced by an audio
6 output device, said method comprising the steps of:

7 converting each said broadcast signal to a character
8 representation thereof;

9 tuning one of said receivers to a user selected
10 frequency;

11 coupling said broadcast signal associated with said one
12 of said receivers to said audio output device wherein all
13 others of said receivers are not coupled to said audio output
14 device;

15 scanning said broadcast band associated with each of said
16 all others of said receivers;

17 comparing said character representation of said broadcast
18 signal with said search criteria for each of said all others
19 of said receivers;

20 generating a match signal when said search criteria is
21 present in said character representation for one receiver from
22 said all others of said receivers to thereby define a match
23 frequency on a match broadcast band where said search criteria
24 is present;

25 announcing the generation of said match signal;

26 receiving a match select signal from the user; and

27 uncoupling said one of said receivers from said audio
28 output device in response to said match select signal;

29 coupling a designated one of said receivers capable of
30 receiving said match frequency on said match broadcast band to
31 said audio output device in response to said match select
32 signal; and

33 performing said steps of scanning and comparing for said
34 one of said receivers so-uncoupled.

1 14. A method according to claim 13 wherein said step of
2 converting includes the step of performing speech recognition
3 processing when said broadcast signal is said analog audio
4 signal.

1 15. A method according to claim 13 further comprising the
2 step of storing at least one of said broadcast signal received
3 on said match frequency and said character representation
4 corresponding thereto.

1 16. A method according to claim 13 wherein said step of
2 announcing comprises the step of generating at least one of an
3 audible manifestation and a visible manifestation of said
4 match signal.

1 17. A method according to claim 13 wherein said character
2 representation is an ASCII character representation.